

Arboricultural Consultancy for Esure

Note: This report is intended for use between the client, Environmental Services and any parties detailed within the report. It is based on the understanding at the time of visiting the property that Engineers are satisfied that damage is attributable to clay shrinkage subsidence exacerbated by vegetation.

1. Case Details

Insured		Address	34 Laurier Road, London, NW5 1SJ		
Client	Subsidence Management Services	Contact	Delroy Brown	Claim No.	
ES Ref		Consultant	Kirk Thompson	Contact No.	
Report Date	03/12/2020				

Scope of Report: To survey the property and determine significant vegetation contributing to subsidence damage, make recommendation for remedial action and assess initial mitigation and recovery prospects. The survey does not make an assessment for decay or hazard evaluation.

2. Property and Damage Description

The insured structure is a 4 storey semi-detached house. The property occupies a level site with no adverse topographical features.

Damage relates to the front entrance steps of the insured dwelling. Please refer to the engineers report for a full description of the claim history and damage.

3. Technical Reports

In preparing our report we have had the benefit of the following technical investigations:

Soil Analysis	<input checked="" type="checkbox"/>	Foundation Detail	<input checked="" type="checkbox"/>	Root Analysis	<input checked="" type="checkbox"/>
Borehole Log	<input checked="" type="checkbox"/>	Engineers Report	<input checked="" type="checkbox"/>		

4. Action Plan

Mitigation	
Insured involved?	Yes
Local Authority involved?	No
Other third party Mitigation involved?	Yes
Recovery	
Is there a potential recovery action?	Yes

Treeworks	
Local Authority	Camden London Borough
TPO / Conservation Area / Planning Protection Searches	Awaiting Searches from LA
Additional Comments	
Awaiting Further Instructions.	
A potential recovery action has been identified.	
Engineers should consider focusing investigations to strengthen factual evidence for disclosure to third party tree owners.	

5. Technical Synopsis

This report is based upon our understanding at the time of visiting the property that Subsidence Management Services' engineers are satisfied that damage is due to clay shrinkage subsidence exacerbated by vegetation.

Foundations are noted to extend to a depth of 600mm in ITP1, and bear onto subsoil described within the borehole log as containing clay, thereby indicating the potential for the observed damage to be the result of clay shrinkage subsidence exacerbated by the influence of vegetation.

The supporting subsoil has been analysed by a UKAS accredited Laboratory (to relevant BS, EN and ISO standards).

NHBC chapter 4.2 (2020) categorises the supporting subsoil as being of 'Medium' plasticity, i.e. capable of moderate volumetric change potential in response to moisture content.

Atterberg tests demonstrate that whilst the supporting subsoil is not desiccated, the load bearing capacity of the soil has not



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been compromised by excessive water content due to leaking drains and is therefore capable of bearing the imposed load.

We have been instructed to advise on the causal vegetation and to deliver management proposals which will provide on-going and long term stability, thereby allowing repairs to be undertaken.

In assessing the potential drying influence of the vegetation on site, we have considered species profile, normally accepted influencing distance and the position of vegetation relative to the observed damage.

From our observations on site, the footings of the subject property fall within the anticipated rooting range of a quantity of vegetation located on/near the site, thereby indicating the potential for the observed damage to be the result of clay shrinkage subsidence exacerbated by the influence of vegetation.

Site Investigations revealed the presence of roots in TP/BH1 to a maximum depth of 1500mm.

Samples of these roots were recovered from underside of foundations and throughout the borehole, these roots were identified (using anatomical analysis) as having emanated from the genus' Cupressaceae spp. (includes: Cypress), a sample too juvenile for positive identification (also absent of starch) and Prunus spp. (includes amongst others: Plum).

Our survey of the site identified H1 (Cypress) and T5 (Plum), given their position relative to the damage it is in our opinion that the roots identified within TP/BH1 will emanate from this vegetation.

With regards to the "too juvenile for positive identification" roots, given their lack of starch, it is our opinion that these roots will either emanate from historically removed vegetation.

Based on our site investigations, and taking account of vegetation location, relative to the focal area of movement/damage, it is our opinion that H1 and T5 are considered the dominant features, and accordingly we have identified them as the principal cause of the subsidence damage.

The size and proximity of this vegetation is consistent with the location of damage and advised mechanism of movement; it is our opinion on balance of probability that roots from the above vegetation will be in proximity to the footings of the insured property.

Considering engineers conclusions, results of site investigations and our observations on site, vegetation management is considered appropriate with a view to restoring stability.

Please refer to Section 6 for management prescriptions.

Vegetation management in the form of removal and appropriate stump treatment will help to promote the restoration of long-term stability to the insured property.

Whilst we have given consideration to pruning as a means of mitigating the vegetative influence of the above, this has been discounted; pruning is generally ineffective and in the context of the current claim we consider the above vegetation is simply too large and/or close for pruning to be effective.

Consequently, removal of H1 and T5 will offer the most certain and reliable Arboricultural solution likely to restore long-term stability.

Replacement planting is considered appropriate however due consideration must be given to the ultimate size of the replacement and future management requirements.

Species selection should be appropriate for the chosen site and ultimate tree height should not exceed 75% of the available distance to built structures.

We recommend the efficacy of the management recommendations be qualified by means of further monitoring to confirm stability.

Please note that the footing of the insured property fall within the anticipated rooting distance of additional vegetation which we



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believe presents a foreseeable risk of future damage and accordingly we have made recommendations in respect of this.

Is vegetation likely to be a contributory factor in the current damage?	Yes
Is vegetation management likely to contribute to the future stability of the property?	Yes
Is replacement planting considered appropriate?	Yes
Would DNA profiling be of assistance in this case?	No

6.0 Recommendations

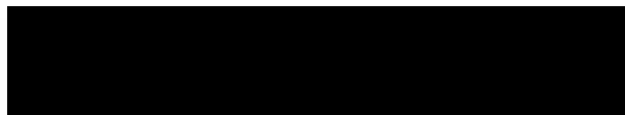
6.1 Current Claim Requirements

These recommendations may be subject to review following additional site investigations.

Tree No.	Species	Age Cat	Approx. Height (m)	Distance to Building (m) *	Ownership	Action	Requirement
H1	Cypress	1	2.9	1.8	A - Third Party	Remove	Remove close to ground level.
T5	Plum	1	6.8	5.9	A - Third Party	Remove	Note: Distance recorded to area of movement, where tree stands 3.5m from front elevation. Remove close to ground level and treat stump to inhibit regrowth.

Age Cat: 1 = Younger than property; 2 = Similar age to the property; 3 = Significantly older than property

* Estimated



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6.2 Future Risk Recommendations

These recommendations may be subject to review following additional site investigations.

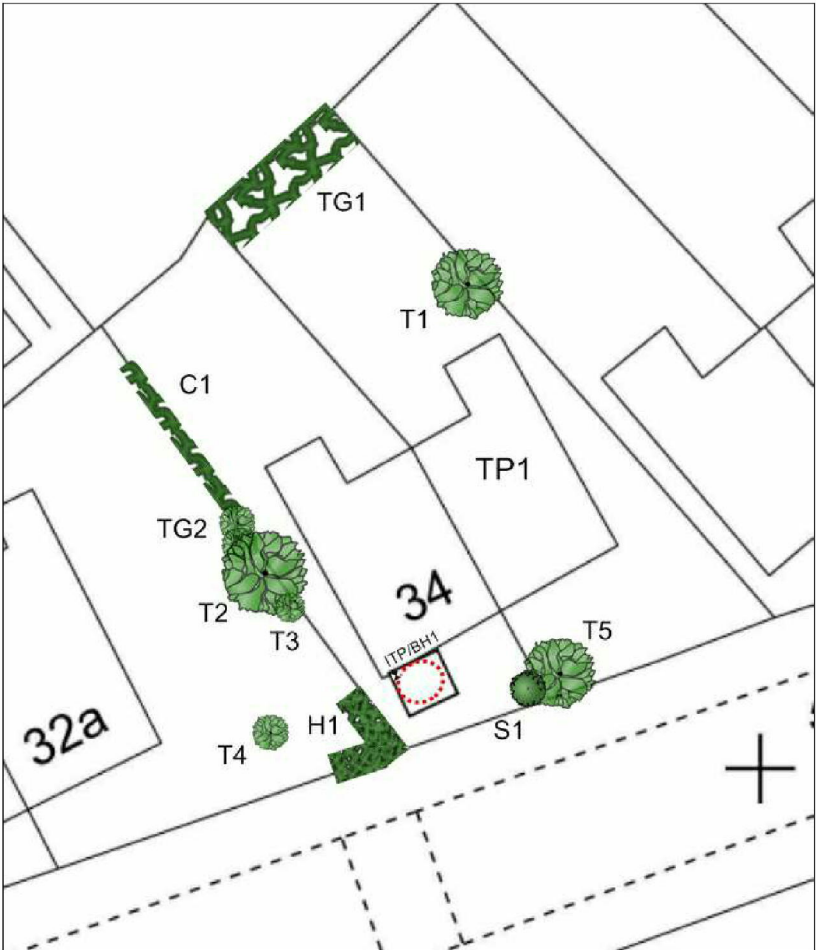
Tree No.	Species	Age Cat	Approx. Height (m)	Distance to Building (m) *	Ownership	Action	Requirement
C1	Jasmine	1	2.4	2.4	C - Insured	No action	No works.
S1	Weigela	1	2.5	3.5	C - Insured	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.
T1	Cherry	1	9	7.5	A - Third Party	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.
T2	Maple	1	10.5	3	A - Third Party	Action to avoid future risk	Crown reduce overall canopy by 30% (minimum) to achieve a crown volume reduction in line with BRE IP7/06. Maintain at reduced dimensions by re-pruning back to points of previous reduction on a strict 2-3 year cycle.
T3	Snowy Mespilus	1	2.8	2.5	A - Third Party	No action	Do not allow to exceed current dimensions by way of regular pruning.
T4	Birch	1	6	4.5	A - Third Party	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.
TG1	Mixed Species Group: Includes Pear, Bay Laurel & Pittosporum.	1	9.2	11.5	A - Third Party	No action	No Works.
TG2	Photinia	1	4.5	2.8	A - Third Party	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.
Age Cat: 1 = Younger than property; 2 = Similar age to the property; 3 = Significantly older than property							

* Estimated

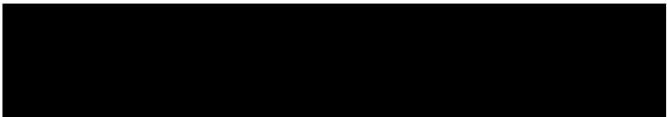
Third party property addresses should be treated as indicative only, should precise detail be required then Environmental Services can undertake Land Registry Searches



7. Site Plan



Please note that this plan is not to scale. OS Licence No. 100043218



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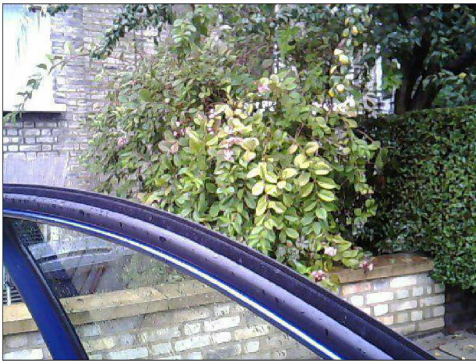
8. Photographs



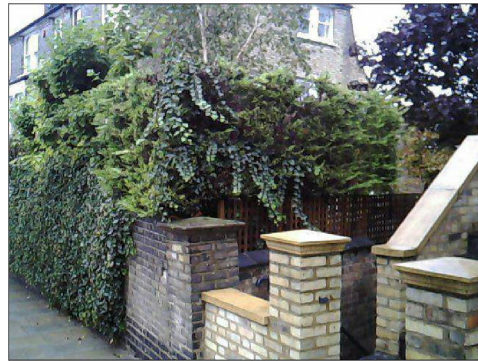
T5 - Plum



T1 - Cherry



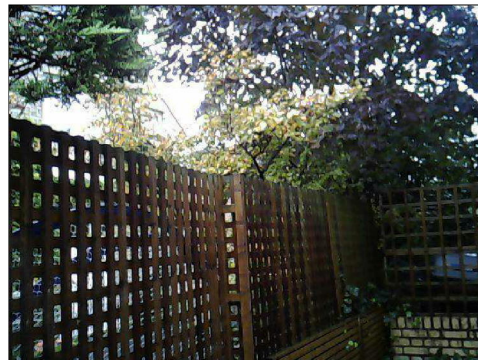
S1 - Weigela



H1 - Cypress



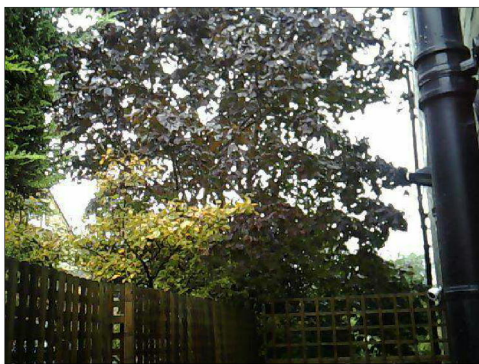
T4 - Birch



T3 - Snowy Mespil



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T2 - Acer



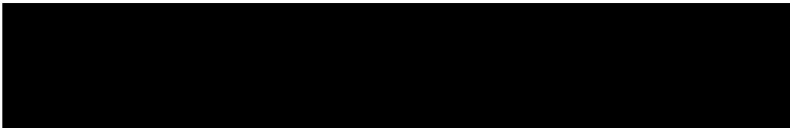
TG2 - Photinia



C1 - Jasmine



TG1 - Mixed species group



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Date: 03/12/2020

Property: 34 Laurier Road, London, NW5 1SJ

9. Tree Works Reserve - Does not include recommendations for future risk.

Insured Property Tree Works	
Third Party Tree Works	
Provisional Sum	

- The above prices are based on works being performed as separate operations.
- The above is a reserve estimate only.
- Ownerships are assumed to be correct and as per Section 6.
- A fixed charge is made for Tree Preservation Order/Conservation Area searches unless charged by the Local Authority in which case it is cost plus 25%.
- Should tree works be prevented due to statutory protection then we will automatically proceed to seek consent for the works and Appeal to the Secretary of State if appropriate.
- All prices will be subject to V.A.T., which will be charged at the rate applying when the invoice is raised.
- Trees are removed as near as possible to ground level, stump and associated roots are not removed or included in the price.
- Where chemical application is made to stumps it cannot always be guaranteed that this will prevent future regrowth. Should this occur we would be pleased to provide advice to the insured on the best course of action available to them at that time. Where there is a risk to other trees of the same species due to root fusion, chemical control may not be appropriate.

10. Limitations

This report is an appraisal of vegetation influence on the property and is made on the understanding that that engineers suspect or have confirmed that vegetation is contributing to clay shrinkage subsidence, which is impacting upon the building. Recommendations for remedial tree works and future management are made to meet the primary objective of assisting in the restoration of stability to the property. In achieving this, it should be appreciated that recommendations may in some cases be contrary to best Arboricultural practice for tree pruning/management and is a necessary compromise between competing objectives.

Following tree surgery we recommended that the building be monitored to establish the effectiveness of the works in restoring stability.

The influence of trees on soils and building is dynamic and vegetation in close proximity to vulnerable structure should be inspected annually.

The statutory tree protection status as notified by the Local Authority was correct at the time of reporting. It should be noted however that this may be subject to change and we therefore advise that further checks with the Local Authority MUST be carried out prior to implementation of any tree works. Failure to do so can result in fines in excess of [REDACTED]

Our flagging of a possible recovery action is based on a broad approach that assume all third parties with vegetation contributing to the current claim have the potential for a recovery action (including domestic third parties). This way opportunities do not "fall through the net"; it is understood that domestic third parties with no prior knowledge may be difficult to recover against but that decision will be fully determined by the client.

A legal Duty of Care requires that all works specified in this report should be performed by qualified, arboricultural contractors who have been competency tested to determine their suitability for such works in line with Health & Safety Executive Guidelines. Additionally all works should be carried out according to British Standard 3998:2010 "Tree Work. Recommendations".

